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## FIGURE 1. Methionyl tRNA synthetase cloned DNA sequence [SEQ ID NO:1]

- ATGCCTAAAG AAACATTTTA TATAACAACC CCAATATACT ATCCTAGTGG
- GAATITIACAT ATAGGACATG CATATICTAC AGTGGCTGGA GATGTTATIG 51
- CAAGATATAA GAGAATGCAA GGATATGATG TTCGTTATTT GACTGGAACG 101
- GATGAACACG GTCAAAAAT TCAAGAAAAA GCTCAAAAAG CTGGTAAGAC 151
- AGAAATTGAA TATTTGGATG AGATGATTGC TGGAATTAAA CAATTGTGGG 201
- CTAAGCTTGA AATTTCAAAT GATGATTTTA TCAGAACAAC TGAAGAACGT 251
- CATAAACATG TCGTTGAGCA AGTGTTTGAA CGTTTTATTAA AGCAAGGTGA 301
- TATCTATITA GGTGAATATG AAGGTTGGTA TTCTGTTCCG GATGAAACAT 351

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FIG. 1A

40 T	ACTATACAGA	G'I'CACAAT"I'A	GTAGACCCAC	ACTATACAGA GTCACAATTA GTAGACCCAC AATACGAAAA CGGTAAAATT	CGGTAAAATT
451	ATTGGTGGCA	AAAGTCCAGA	TTCTGGACAC	ATTGGTGGCA AAAGTCCAGA TTCTGGACAC GAAGTTGAAC TAGTTAAAGA	TAGTTAAAGA
501	AGAAAGTTAT	TTCTTTAATA	TTAGTAAATA	TTAGTAAATA TACAGACCGT	TTATTAGAGT
551	TCTATGACCA	AAATCCAGAT	TTTATACAAC	TCTATGACCA AAATCCAGAT TTTATACAAC CACCATCAAG AAAAAATGAA	AAAAATGAA
601	ATGATTAACA	ACTTCATTAA	ACCAGGACTT	ATGATTAACA ACTTCATTAA ACCAGGACTT GCTGATTTAG CTGTTTCTCG	CTGTTTCTCG
651	TACATCATTT	AACTGGGGTG	TCCATGTTCC	TACATCATTT AACTGGGGTG TCCATGTTCC GTCTAATCCA AAACATGTTG	AAACATGTTG
701	TTTATGTTTG	GATTGATGCG		TTAGTTAACT ATATTTCAGC ATTAGGCTAT	ATTAGGCTAT
751	TTATCAGATG	ATGAGTCACT	ATTTAACAAA	TTATCAGATG ATGAGTCACT ATTTAACAAA TACTGGCCAG CAGATATTCA	CAGATATTCA
801	TTTAATGGCT	TTTAATGGCT AAGGAAATTG	TGCGATTCCA	TGCGATTCCA CTCAATTATT TGGCCTATTT	TGGCCTATT

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FIG. 1B

851	TATTGATGGC	TATTGATGGC ATTAGACTTA CCGTTACCTA AAAAAGTCTT TGCACATGGT	ССGТТАССТА	AAAAGTCTT	TGCACATGGT
901	TGGATTTTGA	TGGATTTTGA TGAAAGATGG AAAAATGAGT AAATCTAAAG GTAATGTTGT	AAAAATGAGT	AAATCTAAAG	GTAATGTTGT
951	AGACCCTAAT	AGACCCTAAT ATTTAATTG ATCGCTATGG TTTAGATGCT ACACGTTATT	ATCGCTATGG	TTTAGATGCT	ACACGTTATT
1001	ATCTAATGCG	ATCTAATGCG TGAATTACCA TTTGGTTCAG ATGGCGTATT TACACCTGAA	TTTGGTTCAG	ATGGCGTATT	TACACCTGAA
1051	GCATTTGTTG	GCATTTGTTG AGCGTACAAA TTTCGATCTA GCAAATGACT TAGGTAACTT	TTTCGATCTA	GCAAATGACT	TAGGTAACTT
1101	AGTAAACCGT	AGTAAACCGT ACGATTTCTA TGGTTAATAA GTACTTTGAT GGCGAATTAC	TGGTTAATAA	GTACTTTGAT	GGCGAATTAC
1151	CAGCGTATCA	CAGCGTATCA AGGTCCACTT CATGAATTAG ATGAAGAAAT GGAAGCTATG	CATGAATTAG	ATGAAGAAAT	GGAAGCTATG
1201	GCTTTAGAAA	GCTTTAGAAA CAGTGAAAAG	CTACACTGAA	CTACACTGAA AGCATGGAAA GTTTGCAATT	GTTTGCAATT

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FIG 1C

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FIG 1D

GATTATTGAT GCTGAACATG TTAAGAAGTC AGATAAGCTT TTAAAAATTC 1701

AAGTAGACTT AGATTCTGAA CAAAGACAAA TTGTATCAGG AATTGCCAAA 1751

TTCTATACAC CAGATGATAT TATTGGTAAA AAAGTAGCAG TTGTTACTAA

1801

CCTGAAACCA GCTAAATTAA TGGGACAAAA ATCTGAAGGT ATGATATTAT 1851

CTGCTGAAAA AGATGGTGTA TTAACCTTAG TAAGTTTACC AAGTGCAATT 1901

1951 CCAAATGGTG CAGTGATTAA ATAA

# FIGURE 2. Methionyl tRNA synthetase deduced amino acid sequence [SEQ ID NO:2]

- MAKETFYITT PIYYPSGNLH IGHAYSTVAG DVIARYKRMQ GYDVRYLTGT
- DEHGQKIQEK AQKAGKTEIE YLDEMIAGIK QLWAKLEISN DDFIRTTEER 51
- HKHVVEQVFE RLLKQGDIYL GEYEGWYSVP DETYYTESQL VDPQYENGKI 101
- IGGKSPDSGH EVELVKEESY FFNISKYTDR LLEFYDQNPD FIQPPSRKNE 151
- MINNFIKPGL ADLAVSRTSF NWGVHVPSNP KHVVYVWIDA LVNYISALGY 201
- LSDDESLFNK YWPADIHLMA KEIVRFHSII WPILLMALDL PLPKKVFAHG 251
- WILMKDGKMS KSKGNVVDPN ILIDRYGLDA TRYYLMRELP FGSDGVFTPE 301
- AFVERTNFDL ANDLGNLVNR TISMVNKYFD GELPAYQGPL HELDEEMEAM 351
- ALETVKSYTE SMESLQFSVA LSTVWKFISR TNKYIDETTP WVLAKDDSQK 401

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FIG 2A

PQFMEFSSLE
EIFEOLNINN
LRPFLTHAPK
VENIRYAAVL
DMLGNVMAHL
51

QYGVLTESIM VTGQPKPIFP RLDSEAEIAY IKESMQPPAT EEEKEEIPSK 501 PQIDIKDFDK VEIKAATIID AEHVKKSDKL LKIQVDLDSE QRQIVSGIAK

551

FYTPDDIIGK KVAVVTNLKP AKLMGQKSEG MILSAEKDGV LTLVSLPSAI 601

651 PNGAVIK